

*hispid*a. Wynter-Blyth (BUTTERFLIES OF THE INDIAN REGION 1957) does not mention this as the food plant of the Common Mime.

The occurrence and successful rearing of both the subspecies of the Common Mime on *Ficus hispida* confirms it as a new food plant.

June 17, 1998

DEEPAK APTE

Education Officer,
Bombay Natural History Society,
Hornbill House, Dr. Sálím Ali Chowk,
Shaheed Bhagat Singh Road,
Mumbai-23.

28. FRESHWATER ROTIFERA: EUROTATORIA FROM ASSAM, NORTHEAST INDIA

(With eleven text-figures)

Rotifers have been documented from all conceivable aquatic micro- and macro-environments in all parts of the world, but these organisms are, so far, poorly recorded from subterranean waters (Pejler 1955). This also holds true for the Indian Rotifera (Sharma 1991). Taxonomic studies on the rotifers of this country were initiated more than a century ago. However, till now only two reports by Naidu (1967) and Sharma (1993) refer to their distribution in domestic water wells of Andhra Pradesh and West Bengal respectively.

The present study deals with the species composition of rotifers in various domestic wells located in and around Tezpur (26° 40' N, 92° 46' E). Upper Assam. Plankton samples were collected from 34 domestic wells in April, 1990 (summer) and from 32 domestic wells during December, 1990 (early winter). The collections were obtained by vertically towing a nylobolt plankton net (No. 25). The material so obtained was preserved in 5% formalin. Various species were isolated and identified (list below) following Koste (1978) and Sharma (1987).

The sampled domestic wells were about 20-30 years old and were characterized by acidic water (pH: 5.0 - 6.5) and low specific conductivity (71.4 - 196.4 µS/cm).

ROTIFIER SPECIES EXAMINED

Phylum	: Rotifera
Class	: Eurotatoria
Superorder	: Monogononta
Order	: Ploimida

Family: Lecanidae

- Lecane bulla* (Gosse, 1851) (Fig. 1)
- L. closterocerca* (Schmarda, 1859) (Fig. 2)
- L. hamata* (Stokes, 1896) (Figs. 3 & 4)
- L. inermis* (Bryce, 1892) (Fig. 5)
- L. luna* (O.F. Müller, 1776) (Fig. 6)
- L. pyriformis* (Daday, 1905) (Fig. 7 & 8)

Family: Mytilinidae

- Mytilina bisulcata* (Lucks, 1912) (Fig. 9 & 10)

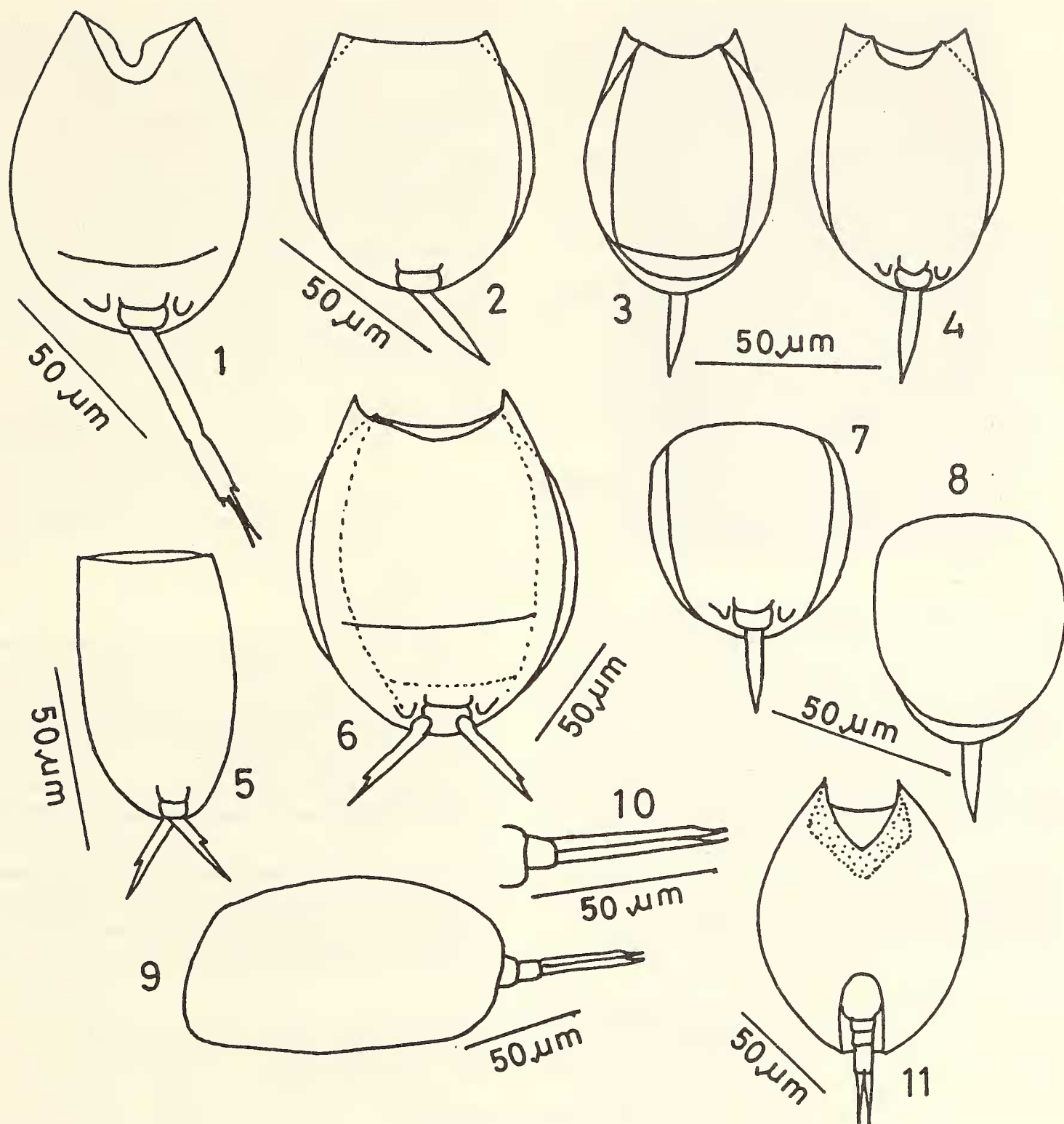
Family: Colurellidae

- Lepadella patella* (O.F. Müller, 1776) (Fig. 11)

Eight species of monogonont rotifers belonging to 3 genera, representing three eurotatorian families are documented. The recorded species richness compares well with the observations from West Bengal (Sharma 1993) but our study revealed comparatively lower generic diversity. Lower qualitative abundance of Rotifera in the domestic wells of Assam conforms with earlier investigations and with the results of Ronenberger (1975) and Pejler (1995). The paucity may be attributed to the pristine subterranean environs.

Three species, namely, *Lecane bulla*, *L. inermis* and *L. pyriformis*, represented new reports from these biotopes, bringing the known species of monogononts from domestic wells in India upto 16.

All the presently recorded species are euryecious cosmopolitan elements. Of these,



Figs. 1-11: *Lecane bulla* (Gosse): 1. ventral view; *L. closterocerca* (Schmarda): 2. ventral view; *L. hamata* (Stokes): 3. dorsal and 4. ventral view; *L. inermis* (Bryce): 5. ventral view; *L. luna* (Müller): 6. ventral view; *L. pyriformis* (Daday): 7. ventral and 8. dorsal views; *Mytilina bisulcata* (Lucks): 9. lateral view, 10. toes (enlarged); *Lapadella patella* (Müller): 11. ventral view.

Mytilina bisulcata and *Lecane inermis* are of ecological interest. The former is an acidophilic species (Sharma 1991), while *L. inermis* appears to be confined to acidic waters in Meghalaya (Sharma 1987) and the present study also affirms its acidophilic nature. Further, both *M. bisulcata*

and *L. inermis* are of regional distributional importance in India. The examined taxocoenosis is characterized by qualitative dominance of *Lecane* sp. The same has been observed in domestic wells in West Bengal (Sharma 1993) but the samples from Assam contained more

species of the family Lecanidae.

The observed species composition differed notably from earlier studies from Andhra Pradesh (Naidu 1967) and West Bengal (Sharma 1993). The rotifer communities from Assam registered 16.2% and 47.1% similarities [vide Sorensen Index (Sorensen 1948)] with those from the Andhra Pradesh and West Bengal. *Lepadella patella* is the sole species common to the samples from Assam and Andhra Pradesh. On the other hand, four species i.e., *Lecane closterocerca*, *L. luna*, *Lepadella patella* and *Mytilina bisulcata* were found to be common to Assam and West Bengal.

The rotifers were observed in 18 (about 53%) of the total 34 domestic wells sampled

during summer (April 1990). They, however, occurred in only five (16%) out of the total 32 domestic wells sampled during early winter (December 1990). The percentage occurrence is relatively lower than the results from West Bengal (Sharma 1993), which indicated rotifers in 16 (64%) out of total 25 sampled domestic wells. Further, *Lecane closterocerca* and *L. hamata* depicted co-occurrence in a number of collections from Assam, while other species appeared to be rare in the present study.

May 11, 1998

B.K. SHARMA

Department of Zoology,
Northeastern Hill University,
Shillong-793 022 (Meghalaya)

REFERENCES

- KOSTE, W. (1978): Rotatoria. Die Rädertiere Mitteleuropas. Begründet von Max Voigt. Überordnung Monogononta. Gebrüder Borntraeger, Berlin. I. Textbd. (673 pp.), II. Tafelbd. (T. 234).
- NAIDU, S.V. (1967): A contribution to the rotatorian fauna of South India. *J. Bombay nat. Hist. Soc.* 64: 384-388.
- PEJLER, B. (1995): Relation to habitat in Rotifers. *Hydrobiologia*, 313/314: 268-278.
- RONENBERGER, D. (1975): Zur Kenntnis der Grundwasserfauna des Saale - Einzugsgebietes (Thüringen). *Limnologica*, 9: 323-419.
- SHARMA, B.K. (1987): The distribution of the Lecanid rotifers (Rotifera: Monogononta: Lecanidae) in North-Eastern India. *Rev. Hydrobiol. trop.* 20: 101-106.
- SHARMA, B.K. (1991): Rotifera. In: Animal Resources of India: Protozoa to Mammalia: State of the art. Zool. Surv. India. Calcutta: 69-88.
- SHARMA, B.K. (1993): Freshwater rotifers (Rotifera: Eurotatoria) from some domestic wells in West Bengal. India. *J. Indian Inst. Sci.*, 73: 463-468.
- SORENSEN, T. (1948): A method of establishing groups of equal amplitude in plant sociology based on similarity of species content and its application to analysis of the vegetation of Danish commons. *Biol. Skr.*, 5: 11-34.

29. RECORD OF *HOMALOCANTHA SECUNDA* (LAMARCK 1822) FROM OKHA IN GULF OF KUTCH

(With one text-figure)

Family Muricidae (Mollusca) is well represented along the Indian coast. However, most publications are based on surveys made in the early 1950s. Rao and Rao (1993) report 60 species of *Murex* from the Andaman and Nicobar Islands, from collections of the Zoological Survey of India.

The literature on molluscs along the west coast of India is sparse. Notable contributions are those of Melvill and Abercrombie (1893), Subrahmanyam *et al.* (1952), and Menon *et al.*

(1961). Among the publications from south and southeast coast of India, those of Crichton (1941), Gravely (1942), Satyamurthi (1952), and Rao and Rao (1993) are important.

During a survey conducted in 1995 at Okha, I came across a mating pair of small *Murex* which could not be identified immediately. The specimens have a shouldered whorl, frilled outer lip, long siphonal canal which is open, with three to four short, strong spines. The larger shell is